# DIGITAL ARTEFACTS SUPPORTING THE APPROPRIATION OF PUBLIC SPACES AND PATHS IN HELSINKI

Joanna Saad-Sulonen, IT University of Copenhagen, jsaa@itu.dk
Liisa Horelli, Aalto University, liisa.horelli@aalto.fi
Maarit Kahila, Mapita Oy, Aalto University, maarit.kahila@aalto.fi

## ABSTRACT
Urban movements in the Nordic countries increasingly rely on a variety of freely available mundane digital technologies to self-organize around issues of common interest (Saad-Sulonen & Horelli 2017). The aim of the poster is to present the results of an explorative case study on the use of digital artefacts by a self-organizing urban movement, the National Urban Park to Helsinki (NUPH). The digital artefact ecology, expanded through collaborations with city authorities, can be considered as playing a key role in, first, getting stakeholders involved, and then, opening the way for the potential appropriation of significant spaces of mobility, including streets, trails, and waterways.

## KEYWORDS
Self-organization, digital artefact ecology, urban nature

## INTRODUCTION
The NUPH was created in 2015, by a group of people pushing for a national park that could protect and maintain the cultural, natural, and ecological heritage of the Capital of Finland, in the face of a threatening densification. NUPH, comprises around 100 active individual members (2/3 female), as well as 7000 citizens with 80 neighborhood and other organizations, who signed a petition to found a National Park, which the City is currently planning with the movement. Although not consisting of particularly technology or media savvy members, NUPH has shaped and been shaped by a working digital artefact ecology (Bødker et al. 2016) that supports their needs.
Drawing on a conceptual framework on participation in the design of information and communication technologies as well as in urban planning, our research addresses the following research questions:

- **What is the digital artefact ecology of NUPH? What have been the main challenges?**
- **How does the digital artefact ecology support the appropriation of public space, especially that of mobility?**

## METHODOLOGY
- Face to face interviews with 1) the founders of NUPH, 2) the City of Helsinki planning facilitator, and 3) the development director at Mapita Oy
- Participant observations at NUPH meetings in Helsinki and workshops organised by the City of Helsinki facilitator
- Online research on the NUPH Facebook page and group, as well as on the City of Helsinki website
- PPGIS collection of data and analysis (through Mapita Oy and the third author)

**RESULTS**

The digital artefact ecology of the community comprises a complex set of digital tools to address the group's different needs: the NUPH's own website that allows for a professional web presence, Facebook (FB) public page and Twitter for quick public information sharing, FB private group for internal communication and digital media sharing, Google Drive and docs for collaborative work, Doodle for internal scheduling, and the Maptionnaire PPGIS tool provided by Mapita Oy for the City of Helsinki for locative data collection and analysis (Kahila et al., 2013; see Figure 1). The Maptionnaire was used in the feasibility study of the future park, and it received 12150 markings on the map from 1419 visitors (out of a total of 3705 visitors). The collected data is available as open data from the Helsinki Region Infoshare website, in ESFRI shape package. The NUPH was involved in creating the Maptionnaire questions but not in the analysis of the data, which was carried out by Mapita Oy.

The main challenges relate to the overly technical nature of data analysis, which can only be done by experts, as well as occasional difficulties in the collaboration between citizens and officials. The combined array of tools tools have supported NUPH to gain weight and momentum concerning the appropriation of public spaces and those of mobility. The analysis of the Maptionnaire data shows emphasis on pedestrian and cycling mobility as well as the use of water and ice as routes (Figure 2), thus supporting the ideals of the NUPH movement.

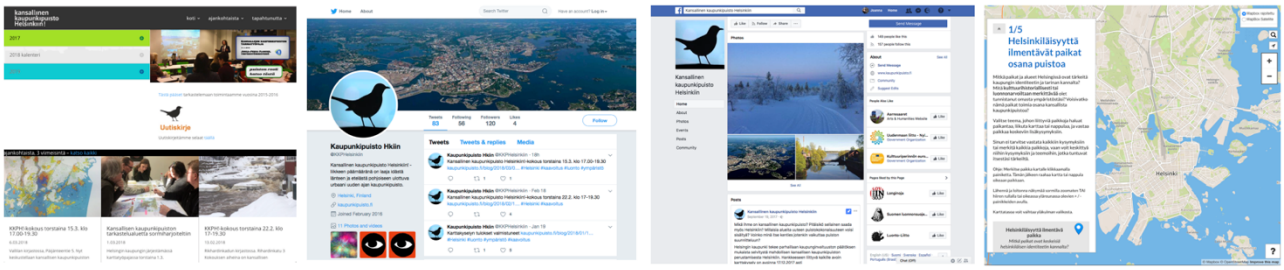

*Figure 1. Some of the digital tools used by NUPH: from left to right the NUPH website, the Twitter page, the private FB group, and the Maptionnaire PPGIS tool*

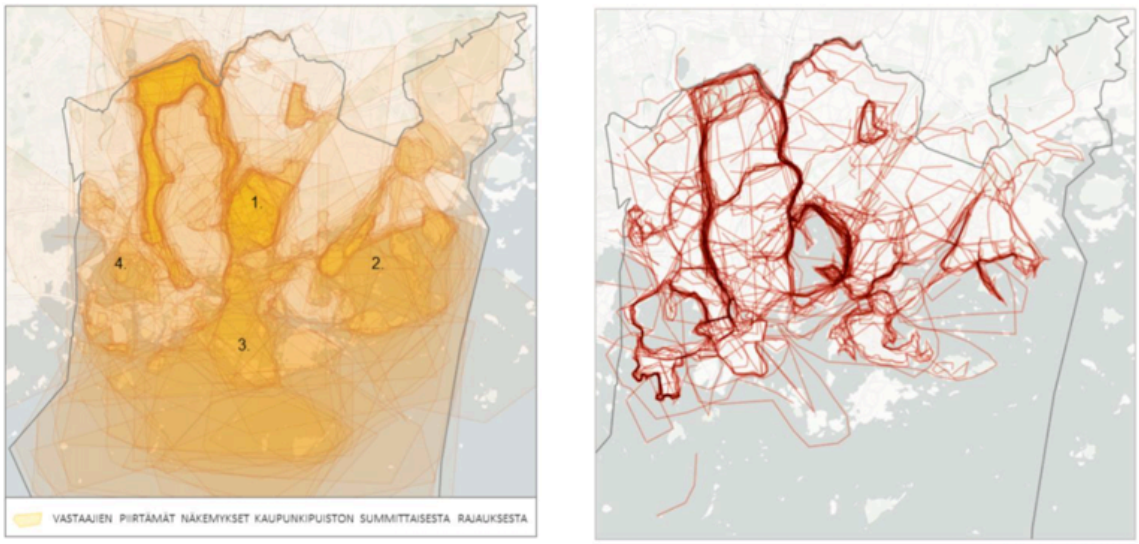


*Figure 2. Results of the online questionnaire: proposed limits of the park (left) and mobility channels (right)* © the City of Helsinki and Mapita Oy (used with permission)

**CONCLUSIONS**

NUPH is a good example of civic self-organization which, despite modest expertise in digital technologies, has consolidated a working digital artefact ecology to rally citizens around issues of cultural, natural, and ecological heritage in Helsinki. Emphasis on routes and paths for walking, bicycling, boating, even skating and skiing on the Gulf of Finland highlights a more multi-faceted understanding of the spaces of mobility in the city. Thus the ´street` is expanded to include, besides roads and routes, also footpaths, trails and tracks in the forests, waterways from one island to another, and even ecological paths for animals.

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